## IN THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims in the application.

1.      (Currently amended)   An apparatus in a data processing system, said apparatus comprising:

a voltage controller having an output <u>to prevent power droop caused by a change</u> <u>in computational state</u> and being coupled to receive a signal indicating a level of voltage, and

a detector of power change coupled to said voltage controller to provide said signal in response to a change in power level in said data processing system.

2.      (Original)      An apparatus according to claim 1 wherein said voltage controller is coupled to receive a signal to boost voltage and wherein said apparatus compensates for a potential voltage droop.

3.      (Original)      An apparatus according to claim 1 wherein said voltage controller is coupled with a power distribution bus and wherein said detector of power change detects a change in one of current or voltage.

4.      (Original)      An apparatus according to claim 1 wherein said voltage controller comprises an adjustable reference voltage coupled to receive a signal from said detector of power change.

5.    (Original)    An apparatus according to claim 1 wherein said detector of power change is coupled with a microprocessor and said voltage controller and said detector of power change detects a change in current drawn by said microprocessor.

6.    (Original)    An apparatus according to claim 4 wherein said adjustable reference voltage is coupled to provide a voltage level reference according to said signal from said detector of power change.

7.    (Original)    An apparatus according to claim 1 wherein said detector of power change may comprise a hardware or a software current detector.

8.    (Currently amended)   A method for providing a supply of power in a data processing system, said method comprising:

>    detecting a change in current drawn by said data processing system;

>    determining according to the change in current a power level;

>    increasing a voltage level for a predetermined amount of time to prevent voltage
>    droop.

9.    (Original)    A method as in claim 8 wherein said change in current is detected at a microprocessor to determine whether an increase in demand for power is occurring or is about to occur.

10.   (Original)    A method as in claim 9 wherein said method is used to compensate for a voltage droop in said data processing system.

11. (Original) A method as in claim 10 wherein said detecting comprises determining a change in compute load as an indicator of the change in current level.

12. (Original) A method as in claim 10 wherein a voltage controller is coupled to receive a current level signal and said voltage controller adjusts said voltage level based on said current level signal.

13. (Currently amended) A method as in claim 12 wherein an adjustable reference voltage is coupled to the voltage controller to receive said current level signal and determine said voltage level, which the voltage controller is to provide via ~~said~~ a power distribution bus to said microprocessor.

14. (Original) A method as in claim 12 wherein said voltage controller, in order to neutralize any voltage droop that can occur, increases the voltage level at the microprocessor for a limited time up to a predetermined voltage level.

15. (Original) A method as in claim 14 wherein said voltage controller after a limited time has elapsed decreases the voltage back to within normal parameters.

16. (Currently amended) A method for providing a supply of power in a data processing system, said method comprising:

    programming a microprocessor in said data processing system with instructions to

        anticipate changes in compute load levels;

    determining according to said compute load level the power level needed at the

        microprocessor;

increasing the voltage level for a predetermined amount of time ~~is~~ <u>to prevent</u>

<u>power droop in</u> response to said determining.

17.    (Original)    A method as in claim 16 wherein said programming instructions

are used to anticipate changes in compute load, which are coupled with current level

changes, and , in turn, determine whether an increase in demand for power is occurring

or is about to occur.

18.    (Original)    A method as in claim 16 wherein said programming instructions

send a signal to a voltage controller to indicate the changes in current level at the

microprocessor.

19.    (Original)    A method as in claim 18 wherein said voltage controller is coupled

to receive said signal and said voltage controller determine the voltage level needed to

be supplied via a power distribution bus to said microprocessor.

20.    (Original)    A method as in claim 19 wherein said voltage controller, in order to

neutralize any voltage droop that may occur, increases the voltage level for a limited time

up to predetermined voltage level.

21.    (Original)    A method as in claim 20 wherein said voltage controller after a

limited time has elapsed decreases the voltage back to within normal parameters.

22.    (Currently amended)    A method of controlling the operation of a data processing

system, said method comprising:

operating said data processing system at a first operating frequency;

raising a power supply voltage from a first voltage to a second voltage;

operating, after said raising, said data processing system at a second operating

frequency which is greater than said first operating frequency;

boosting said second voltage for a period of time concurrently with an initial

portion of time of said operating at said second frequency.


23.    (Canceled)


24.    (Original)    A method as in claim 22 further comprising:

lowering said operating frequency from said second operating frequency;

lowering said power supply voltage from said second voltage after said lowering

of said operating frequency.